

To: R8 GKM Leadership Team[R8_GKM_LeadershipTeam@epa.gov]
From: Ostrander, David
Sent: Mon 11/2/2015 11:36:25 PM
Subject: FW: SEPW QFRs from Sept. 16, 2015 GKM hearing

Here are responses to our assigned questions.

From: Way, Steven
Sent: Monday, November 02, 2015 4:20 PM
To: Ostrander, David
Subject: RE: SEPW QFRs from Sept. 16, 2015 GKM hearing

Steven Way

Federal On-Scene Coordinator

Emergency Response Unit

US EPA - Region 8

1595 Wynkoop Street

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From: Ostrander, David
Sent: Monday, November 02, 2015 12:44 PM
To: Way, Steven
Subject: FW: SEPW QFRs from Sept. 16, 2015 GKM hearing

Here is where I got to on the questions. Please keep your answers direct and to the point.

Thanks for your help.

From: Russo, Rebecca
Sent: Monday, November 02, 2015 11:30 AM
To: Ostrander, David; Murray, Bill; Wharton, Steve
Cc: Card, Joan
Subject: FW: SEPW QFRs from Sept. 16, 2015 GKM hearing

David, Bill, and Steve,

Based on further input from Bill and Steve, here's a revised list of assigned questions.

Please let me know if you can respond to each of the questions assigned to you by COB today or noon tomorrow at the latest.

Thanks,

Rebecca

QUESTIONS FOR DAVID O.

NEW: David: Bill says the removal part of this question is for you.

1. Please provide a list of all inactive or abandoned mine sites across the country where EPA has led or overseen non-EPA lead removal or remedial actions between January 2009 and the present date. For each site, please identify: (a) whether the cleanup action was designated as an (i) emergency removal, (ii) time-critical removal, (iii) non-time critical removal; or (iv) remedial action; (b) the date when the contractor mobilized to carry out the removal or remedial action; (c) the lead agency or entity overseeing the cleanup; (d) a summary of the current status of

cleanup work at the site including; (e) whether (i) the site has been included on the National Priorities List or (ii) is under consideration for inclusion; (f) whether the site included a collapsed mine portal or adit and, if so, (ii) whether hydrological pressure was tested to determine the risk of a potential blowout and, if so, (iii) how pressure was tested; (g) (i) an estimate of the flow of mine water or acid mine drainage from the site, (ii) whether such water or drainage is or will be treated, and (iii) whether the flow or drainage is subject to a federal or state discharge permit; (h) EPA's costs to date for cleanup; and (i) (i) the name of any contractor performing or assisting with the removal, (ii) the contract number, and (iii) and the amount paid to the contractor to date.

3. According to the March 20, 2013, Removal Site Evaluation for the Red and Bonita Mine, a well was drilled from above the collapsed entrance to test for water pressure. (a) How much did it cost to drill the test well and perform the water pressure test at the Red and Bonita Mine? (b) The September 24, 2014, action memorandum approving funding for a removal action at the Red and Bonita Mine estimates that the removal work at the Red and Bonita Mine site would cost about \$1.7 million. Does that figure include the costs for performing any work at the Gold King Mine site?

Based on recollection, the drilling costs alone were approximately \$30,000 for 3 holes of less than 30 feet in depth each. This did not include the road preparation or the geologist logging the well. Exact costs are not readily available in records from an expired contract; the drilling was performed in 2010 or 2011.) The removal action at the Red and Bonita did not include any costs for the Gold King Mine.

4. The August 8, 2015 Summary Report of EPA's Internal Review of the Gold King Mine Blowout states that EPA and its contractors were unable to drill a well at the Gold King Mine site to test water pressure at the collapsed mine entrance because of the time, cost, and site conditions. Please explain how similar site conditions, timing, and cost considerations did not prevent drilling a test well at the Red and Bonita Mine site.

The road accessing the Red and Bonita mine ends at an elevation just above the top of adit portal, and it allowed for a short road to be cut upslope, immediately above the adit. This was a short distance and a relatively shallow well (approximately 30 feet depth or less. The ability to penetrate the adit was a near certainty but still required 3 attempts as a result of inaccurate historical maps. Even with this relatively straight forward drilling effort, the ground conditions provided road and drill pad that were minimally stable to conduct the work.) The site conditions at the Gold King Mine were (are) very different in terms of terrain, geologic conditions and slope stability. The ability to access a location near the portal to drill the Gold King Mine was very questionable, and based on a collapsed ground above the old adit portal, it was not safe to place drill rig above the adit near the portal as was accomplished at the Red and Bonita Mine. The steep terrain, the sink hole above the adit and other factors made any decision to drill the Gold King Mine much more difficult to accomplish. The nearest location that would have been suitable to drill was approximately 2 miles up the mountain road, a mile of which is not a maintained road, and an estimated 400 feet requiring total rebuilding. The estimated

drilling depth is over 700 feet at approximately 53 degree angle into the Level 7 approximately a 1000 feet back in the adit from the portal. A drill hole directed to intersect the Level 7 adit behind the blockage would be approximately 1300 feet and 25 degrees. (Note: in addition, the mine maps for the Gold King workings are not internally consistent and the exact location of the underground workings relative to surface benchmarks maybe off by several tens of feet if not more based on DRMS mapping and modeling. This would further complicate the drilling operations.) The reality is this would likely have required a two year operation or more to accomplish given the uncertainties requiring road construction, surveying and a significant drilling contracting process due to the complexity of the drilling conditions.

5. The removal action at the Red and Bonita Mine (including the action at the Gold King Mine site) was designated as time-critical. However, investigative work at the site began around 2010, the collapsed mine portal was rebuilt in 2013, and work to install a bulkhead was approved in 2014. Please explain why the Red and Bonita Mine site was designated as “time-critical” when work at the site has been conducted over several years and is ongoing. In your response, please identify applicable statutory requirements, regulations, policies, and guidance documents concerning the factors used to designate a removal as time-critical as opposed to non-time-critical.

EPA has conducted the work to reopen mine portals and evaluate the technical feasibility of installing a bulkhead as investigative work under CERCLA 104(b). Once the evaluation is completed, a decision to conduct a time critical removal action is documented in an action memo. Although classified as time critical, removal actions may take longer to complete than 6 months. The time critical nature is related to the decision to initiate an action, not how long it takes to complete.

The removal evaluation work at the Red and Bonita and several other adits including the Gold King Mine was started in 2010 to generally assess the releases from waste rock and discharging adits. In 2011 it was agreed that opening the Red and Bonita was appropriate to evaluate the possibility to perform source control work in the adit. The assessment of the workings at the Red and Bonita continued through 2014 when it was determined that suitable conditions existed to construct a concrete bulkhead, in 2015.)

6. In early 2011, the owner of the Gold King Mine, the Mogul Mine, and Part of the Red and Bonita Mine (Todd Hennis, doing business as the San Juan Corp.) apparently withdrew permission for EPA to access the mine sites. In May 2011, EPA issued an order under CERCLA to obtain access to the Red and Bonita, Gold King, and Mogul mines to conduct field investigation, drill holes and install monitoring wells, and take soil and water samples. Please describe what, if any holes were drilled and monitoring wells installed, and water samples taken at the Gold King Mine site pursuant to this order.

The access order was issued but did not become effective because Mr. Hennis provided access under consent. The access order was described broadly so that EPA could conduct

anticipated or unanticipated actions on properties owned by either San Juan Corp., Salem Minerals Inc., or Todd Hennis, individually. EPA only collected samples from the Gold King and conducted preliminary access and grading work at the Gold King Mine.

7. An Engineering Evaluation/Cost Analysis (EE/CA) is required for non-time-critical removal actions. As the removal action at the Red and Bonita Mine (and the Gold King Mine) was designated as “time-critical,” no such EE/CA was required to be conducted. Please describe whether any engineering assessment was performed at the Red and Bonita Mine (and the Gold King Mine) to assess the safety of the work site.

The EE/CA term as used in the National Oil and Hazardous Substances Contingency Plan describes the requirement to evaluate alternatives in selecting a removal action and does not refer to any specific engineering evaluation. The workings were investigated by multiple qualified underground mining contractors, a qualified consulting professional engineer and DRMS abandoned mine personnel.

8. In May 2015, Environmental Restoration, LLC (EPA’s contractor) developed a work plan for the Gold King mine that stated, in part, “[c]onditions may exist that could result in a blow-out of the blockages and cause a release of large volumes of contaminated mine waters and sediment from inside the mine, which contain concentrated heavy metals.” To address the water volume, Environmental Restoration planned to install a pipe (called a “stinger”) through the collapsed mine entrance so water could be pumped and treated. Please describe the process used by EPA to evaluate the technical merits and safety of this work plan, including whether any of the EPA personnel who participated in this review (a) were mining engineers and (b) personnel from the Office of Emergency Management participated in reviewing and/or approving the work plan.

EPA had developed a preliminary plan for removing mine water and was in the process of evaluating conditions at the mine to decide whether to go forward with the plan. A meeting was scheduled for August 14th to bring in an additional expert from BOR to assist with the evaluation. EPA and DRMS has engineering geologists working on this project along with professional engineers from 3 different contractors. OEM is not involved in site related decisions or reviews for the removal and emergency response program actions unless certain thresholds are met.

10. Please explain why the Health and Safety Plan at page 22 refers to the “Concord Chemical Site” instead of the Red and Bonita Mine or Gold King Mine sites.

This was an oversight by the contractor in preparing the plan.

11. Although the health and safety plan for the Red and Bonita Mine site stated that a satellite phone would be available for emergency communication purposes, no such device was present at the Gold King Mine site, and workers there were unable to notify the National Response Center or emergency personnel from the blowout location. What are the requirements, policies, and procedures concerning the deployment and use of communication equipment, including satellite

phones, for emergency notification purposes by on-scene coordinators and other EPA or contractor staff performing removal actions?

A satellite phone was not up at the GKM site but one was at the Red and Bonita site just less than 500 feet below the GKM. There were personnel at the Red and Bonita site on "toplander" or "mine rescue" mode because personnel were working underground at the Red and Bonita mine and the satellite phone was available for communications for both. Personnel working at the GKM site were in constant radio communication with personnel at the Red and Bonita and others working down below the site. There was no cell phone reception at GKM and Satellite phone coverage was not consistent from the GK Mine portal area. Satellite phone reception required the ability to move positions to ensure reception in the vicinity of the site. Radio communications have proven to be most reliable in the area. In fact reporting to the NRC was accomplished in a very timely manner via radio communications to personnel below who were able to get in cell phone range quickly and make the report. For safety purposes OSC's and contractors are always required to implement the most effective communication system practicable for the site. At the GKM site there was no breakdown in the communications links. All communications worked in a timely manner. NOTE: DRMS has a detailed log of those facts including communications with local (County officials) on the ground. The State OEM has verified that notifications occurred in a timely manner to downstream agencies and water users.

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24. Under CERCLA section 119, EPA may indemnify contractors for damages caused by negligence of a contractor working on a removal action. Did EPA indemnify any of the contractors working at the Gold King Mine site?

EPA has not indemnified its contractors for negligence working on this removal action.

QUESTIONS FOR EPR (Sandy Stavnes and Steve Wharton):

1. Please provide a list of all inactive or abandoned mine sites across the country where EPA has led or overseen non-EPA lead removal or remedial actions between January 2009 and the present date. For each site, please identify: (a) whether the cleanup action was designated as an (i) emergency removal, (ii) time-critical removal, (iii) non-time critical removal; or (iv) remedial action; (b) the date when the contractor mobilized to carry out the removal or remedial action; (c) the lead agency or entity overseeing the cleanup; (d) a summary of the current status of cleanup work at the site including; (e) whether (i) the site has been included on the National Priorities List or (ii) is under consideration for inclusion; (f) whether the site included a collapsed mine portal or adit and, if so, (ii) whether hydrological pressure was tested to determine the risk of a potential blowout and, if so, (iii) how pressure was tested; (g) (i) an estimate of the flow of mine water or acid mine drainage from the site, (ii) whether such water or drainage is or will be treated, and (iii) whether the flow or drainage is subject to a federal or state discharge permit; (h) EPA's costs to date for cleanup; and (i) (i) the name of any contractor performing or assisting with the removal, (ii) the contract number, and (iii) and the amount paid to the contractor to date.

17. Were you (Administrator McCarthy) aware of the issues involving the Bureau of Reclamation's Leadville Mine Drainage Tunnel when you decided to request the Department of the Interior to conduct the independent review of the Gold King Mine spill?

22. Concerns have been raised by downstream water users that they were not given timely notice of the blowout and the potential risks associated with the flow of contaminated water. What steps, if any, did EPA take to ensure that downstream entities, including state, county, local and Tribal governments, water and irrigation districts, and agricultural users, were properly notified of the blowout? In your response, please specify when and how EPA provided notice to the Navajo Nation and the Southern Ute Nation.

EPA through radio communications was able to alert workers from the state who were in the area. These workers were able to reach local officials in San Juan County on their way into cell phone range. They called the NRC and the state spill line, where notifications were made within a matter of a few hours to local jurisdictions and water users downstream. Local officials assisted in notifying irrigation districts and water users in their jurisdiction. The Southern Ute Tribe received notification on August 5, 2015 from Colorado Parks and Wildlife. EPA Region 8 made notifications to our neighboring Regions 6 and 9 mid-day August 6th. Region 9 learned of the release heading towards San Juan River when the R9EOC received notice of R8 mine release at 1:48 pm (PDT) and notified Navajo Nation. At 9:58 pm R9 notified NN in writing of the closure of the Animas River by the La Plata County Sheriff's order and offered updates and assistance.

Rebecca A. Russo

Region 8 Congressional and Intergovernmental Liaison

Office: 303-312-6757

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From: McGrath, Shaun

Sent: Saturday, October 31, 2015 10:41 AM

To: Russo, Rebecca

Subject: Re: SEPW QFRs from Sept. 16, 2015 GKM hearing

Rebecca, please raise at LT on Monday and let's make sure this gets done on time. thanks

Sent from my iPad